

**Amendments to the Claims:** This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A meandering cantilever contact comprising:
  - a. a triangular footprint having a center corner coinciding with a contacting axis along which a test contact is contacting said cantilever contact;
  - b. a contact tip proximal to said contacting axis for contacting said test contact;
  - c. a base mechanically connecting said cantilever contact to a carrier structure, said base being placed within a distal portion of said footprint and substantially coplanar with said footprint, said distal portion being distal to said contacting axis;
  - d[[c]]. a base beam extending from said base towards said contact tip,
  - e[[d]]. a reverting bow at an end of said base beam that is close to said contact tip;
  - f[[e]]. a reverting beam extending from said reverting bow away from said contact tip;
  - g[[f]]. a forward bow at an end of said reverting beam that is distal to said contact tip;
  - h[[g]]. a tip beam extending from said forward bow towards said contact tip, said tip beam terminating in said contact tip.
2. (Original) The cantilever contact of claim 1, wherein said base beam is bent with respect to said base along a bending axis such that said contact tip is in a tip height above said footprint.
3. (Original) The cantilever contact of claim 2, wherein said bending axis is substantially middle perpendicular to said contact tip.
4. (Original) The cantilever contact of claim 1, wherein said footprint is a substantially rectangular triangle, and wherein said center corner is a hypotenuse end point of said footprint.
5. (Original) The cantilever contact of claim 1, wherein said base is placed in a distant corner of said footprint, said distant corner being most distant to said center corner.

6. (Original) The cantilever contact of claim 1, wherein said base further comprises a base extension extending along said base beam towards said contacting axis.

7. (Original) The cantilever contact of claim 1, wherein said tip beam is connected to a mirrored representation of said cantilever contact along a tip beam connect, said tip beam connect is substantially coincident with a symmetry boundary of said footprint, said mirrored representation being mirrored from said cantilever contact along said symmetry boundary.

8. (Currently Amended) A contact set for conductively contacting two opposing contacts substantially along a contacting axis in a substantially balanced fashion with respect to said contact axis, said contact set comprising at least one upwards pointing contact and at least one downwards pointing contact, both contacts being conductively connected to each other via a base connect establishing an independent conductive path between said opposing contacts, wherein at least one of said upwards and said downwards pointing contacts is a meandering cantilever contact having:

- a. a triangular footprint having a center corner coinciding with said contacting axis;
- b. a contact tip proximal to said contacting axis for contacting one of said two opposing contacts;
- c. a base mechanically connecting said cantilever contact to a carrier structure, said base being placed within a distal portion of said footprint and substantially coplanar with said footprint, said distal portion being distal to said contacting axis;

d[[c]]. a base beam extending from said base towards said contact tip,

e[[d]]. a reverting bow at an end of said base beam that is close to said contact tip;

f[[e]]. a reverting beam extending from said reverting bow away from said contact tip;

g[[f]]. a forward bow at an end of said reverting beam that is distal to said contact tip;

h[[g]]. a tip beam extending from said forward bow towards said contact tip, said tip beam terminating in said contact tip.

9. (Original) The contact set of claim 8, wherein said base beam is bent with respect to said base along a bending axis such that said contact tip is in a tip height above said footprint.
10. (Original) The contact set of claim 9, wherein said bending axis is substantially middle perpendicular to said contact tip.
11. (Original) The contact set of claim 8, wherein at least one other of said upwards and downwards pointing contacts is said meandering cantilever contact.
12. (Original) The contact set of claim 11, wherein said one other meandering cantilever contact is a rotated representation of said meandering cantilever contact rotated around a boundary edge of said footprint and arranged adjacent to said meandering cantilever, wherein at least one of their respective bases are immediately adjacent and conductively connected via said base connect and such that the respective contact tips of all of said meandering cantilevers are within a similar offset to said contacting axis.
13. (Original) The contact set of claim 12, wherein a second base beam of said rotated representation is bent with respect to said second base along a second bending axis of said mirrored representation such that a second contact tip of said mirrored representation is in a tip height below said footprint and proximal to said contacting axis.
14. (Original) The contact set of claim 12, wherein said boundary edge is the longest edge of said footprint.
15. (Original) The contact set of claim 14, wherein said footprint is a rectangular triangle and wherein said longest boundary edge is a hypotenuse of said footprint.
16. (Original) The contact set of claim 8, wherein said footprint is a substantially rectangular triangle, and wherein said center corner is a hypotenuse end point of said footprint.
17. (Original) The contact set of claim 8, wherein said base is placed in a most distant corner of said footprint, said most distant corner being most distant to said center corner.
18. (Original) The contact set of claim 8, wherein said base further comprises a base extension extending along said base beam towards said contacting axis.

19. (Original) The contact set of claim 8, wherein said tip beam is connected to a mirrored representation of said cantilever contact along a tip beam connect, said tip beam connect is substantially coincident with a symmetry boundary along which said mirrored representation is mirrored from said cantilever contact.

20. (Original) The contact set of claim 8 being part of a multiple conductive path interconnect stage having multiple representations of said contact set arrayed in a circular fashion around said contacting axis.

21. (Original) The contact set of claim 8 being part of a multiple conductive path interconnect stage having multiple representations of said contact set arrayed in a mirrored fashion around said contacting axis.

22. (Original) An interconnect assembly for conductively contacting opposing contacts substantially along their respective contacting axes, said interconnect assembly comprising:

- a. a carrier structure for being placed in between said opposing contacts, said carrier structure having a top face and at least one opening substantially concentric to at least one of said contacting axes;
- b. at least one multipath interconnect stage comprising at least two of said two contact sets being configured for conductively contacting two opposing contacts substantially along a contacting axis in a substantially balanced fashion with respect to said at least one of said contact axes, said contact set comprising at least one upwards pointing contact and at least one downwards pointing contact, said upwards and downwards pointing contacts being conductively connected to each other via a base connect establishing an independent conductive path between said opposing contacts, wherein at least one of said upwards and said downwards pointing contacts is a meandering cantilever contact having:
  - i. a triangular footprint having a center corner coinciding with said contacting axis;
  - ii. a contact tip proximal to said contacting axis for contacting one of said two opposing contacts;

- iii. a base mechanically connecting said cantilever contact to a carrier structure, said base being placed within a distal portion of said footprint and substantially coplanar with said footprint, said distal portion being distal to said contacting axis;
- iv. a base beam extending from said base towards said contact tip,
- v. a reverting bow at an end of said base beam that is close to said contact tip;
- vi. a reverting beam extending from said reverting bow away from said contact tip;
- vii. a forward bow at an end of said reverting beam that is distal to said contact tip;
- ix. a tip beam extending from said forward bow towards said contact tip, said tip beam terminating in said contact tip.

23. (Original) The interconnect assembly of claim 22, wherein said base beam is bent with respect to said base along a bending axis such that said contact tip is in a tip height above said footprint.

24. (Original) The interconnect assembly of claim 23, wherein said bending axis is substantially middle perpendicular to said contact tip.

25. (Original) The interconnect assembly of claim 22, wherein at least one other of said upwards and downwards pointing contacts is said meandering cantilever contact.

26. (Original) The interconnect assembly of claim 25, wherein said one other meandering cantilever contact is a rotated representation of said meandering cantilever contact rotated around a boundary edge of said footprint and arranged adjacent to said meandering cantilever, wherein at least one their respective bases are immediately adjacent and conductively connected via said base connect and such that the respective contact tips of all of said meandering cantilevers are within a similar offset to said contacting axis.

27. (Original) The interconnect assembly of claim 26, wherein a second base beam of said rotated representation is bent with respect to said second base along a second bending axis of said mirrored representation such that a second contact tip of said mirrored representation is in a tip height below said footprint and proximal to said contacting axis.
28. (Original) The interconnect assembly of claim 26, wherein said boundary edge is the longest edge of said footprint.
29. (Original) The interconnect assembly of claim 28, wherein said footprint is a rectangular triangle and wherein said longest boundary edge is a hypotenuse of said footprint.
30. (Original) The interconnect assembly of claim 22, wherein said footprint is a substantially rectangular triangle, and wherein said center corner is a hypotenuse end point of said footprint.
31. (Original) The interconnect assembly of claim 22, wherein said base is placed in a most distant corner of said footprint, said most distant corner being most distant to said center corner.
32. (Original) The interconnect assembly of claim 22, wherein said base further comprises a base extension extending along said base beam towards said contacting axis.
33. (Original) The interconnect assembly of claim 22, wherein said tip beam is connected to a mirrored representation of said cantilever contact along a tip beam connect, said tip beam connect is substantially coincident with a symmetry boundary along which said mirrored representation is mirrored from said cantilever contact.
34. (Original) The interconnect assembly of claim 22 being part of a test apparatus for repetitively receiving and testing circuit chips, wherein one of said opposing contacts is part of said test apparatus and the remaining of said opposing contacts is part of said circuit chip.
35. (Currently Amended) A contact set for conductively contacting two opposing contacts substantially along a contacting axis in a substantially balanced fashion with respect to said contact axis, said contact set comprising at least one upwards pointing contact and at least one downwards pointing contact, both contacts being conductively connected to each other via a base connect establishing an independent conductive path between said opposing contacts, wherein at least one of said upwards and said downwards pointing contacts includes:

- a. a triangular footprint having a center corner coinciding with said contacting axis;
  - b. a contact tip proximal to said contacting axis for contacting one of said two opposing contacts;
  - c. a base mechanically connecting said contact to a carrier structure, said base being placed within a distal portion of said footprint and substantially coplanar with said footprint, said distal portion being distal to said contacting axis; and
- d. a base beam extending from said base towards to and terminating in said contact tip.

36. (Original) The contact set of claim 35, wherein said base beam is bent with respect to said base along a bending axis such that said contact tip is in a tip height above said footprint.

37. (Original) The contact set of claim 36, wherein said bending axis is substantially middle perpendicular to said contact tip.

38. (Original) The contact set of claim 35, wherein said upwards and said downwards pointing contacts are rotated representations of each other rotated around a boundary edge of said footprint and arranged adjacent to each other, wherein at least one of their respective bases are immediately adjacent and conductively connected via said base connect and such that the respective contact tips of all of said contacts are within a similar offset to said contacting axis.

39. (Original) The contact set of claim 38, wherein a second base beam of said rotated representation is bent with respect to said second base along a second bending axis of said mirrored representation such that a second contact tip of said mirrored representation is in a tip height below said footprint and proximal to said contacting axis.

40. (Original) The contact set of claim 38, wherein said boundary edge is the longest edge of said footprint.

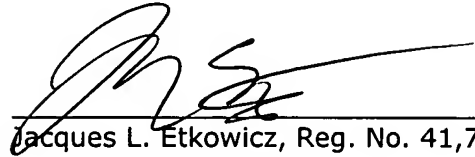
41. (Original) The contact set of claim 40, wherein said footprint is a rectangular triangle and wherein said longest boundary edge is a hypotenuse of said footprint.

42. (Original) The contact set of claim 35, wherein said footprint is a substantially rectangular triangle, and wherein said center corner is a hypotenuse end point of said footprint.
43. (Original) The contact set of claim 35, wherein said base is placed in a most distant corner of said footprint, said most distant corner being most distant to said center corner.
44. (Original) The contact set of claim 35, wherein said base further comprises a base extension extending along said base beam towards said contacting axis.
45. (Original) The contact set of claim 35, wherein at least one of said base beam is connected to a mirrored representation of at least one of said contact along a beam connect, said beam connect is substantially coincident with a symmetry boundary along which said mirrored representation is mirrored from said cantilever contact.
46. (Original) The contact set of claim 45, wherein respective bending axes of said contact and said mirrored representation are substantially middle perpendicular to their common contact tip and in an angle to each other.
47. (Original) The contact set of claim 35 being part of a multiple conductive path interconnect stage having multiple representations of said contact set arrayed in a circular fashion around said contacting axis.
48. (Original) The contact set of claim 35, wherein said interconnect stage is part of a test apparatus for repetitively receiving and testing circuit chips, wherein one of said opposing contacts is part of said test apparatus and the remaining of said opposing contacts is part of said circuit chip.
49. (Original) The contact set of claim 35 being part of a multiple conductive path interconnect stage having multiple representations of said contact set arrayed in a mirrored fashion around said contacting axis.
50. (Original) The contact set of claim 48, wherein said interconnect stage is part of a test apparatus for repetitively receiving and testing circuit chips, wherein one of said opposing contacts is part of said test apparatus and the remaining of said opposing contacts is part of said circuit chip.



Respectfully submitted,

RatnerPrestia



Jacques L. Etkowicz, Reg. No. 41,738  
Attorney for Applicants

JLE/kc

Dated: August 30, 2004

P.O. Box 980  
Valley Forge, PA 19482  
(610) 407-0700

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

August 30, 2004



Kathleen Carney